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10/521,564	09/08/2005	Kenji Sakuda	Q85626	2334
72875	7590	01/29/2009	EXAMINER	
SUGHRUE MION, PLLC 2100 Pennsylvania Avenue, N.W. Washington, DC 20037			HON, MING Y	
			ART UNIT	PAPER NUMBER
			2625	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/521,564	Applicant(s) SAKUDA ET AL.	
	Examiner MING HON	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claim 13 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

3. As per Claim 13, the claim recites "a computer program for causing one or more computers to execute a method". A program is non-statutory subject matter because it does not fall under any of the four statutory categories. The program causing a computer to execute must be stored on a computer-readable medium.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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5. Claims 1-3, 5, 8-9, and 11-13 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Suzuki USPN 6549947.

As per Claim 1, Suzuki teaches in the context of a printing system comprising one or more host apparatuses sending print job data containing a plurality of objects; and one or more printers carrying out printing of the plurality of objects based on the print job data from host apparatus or apparatuses, (Suzuki, Column 1, Lines 45-48) a printing system comprising:

one or more first storage means for storing the print job data; (Suzuki, Column 1, Lines 50-53)

one or more job status monitoring means for creating job status information for each one of the objects by monitoring operations carried out by the printer or printers in connection with printing of the plurality of objects; (Suzuki, Figure 1, Component 9 and Column 1, Lines 53-58)

one or more second storage means for storing the created job status information; (Suzuki, Figure 1, Component 9 and Column 14, Lines 45-55; when the status is sent to the monitor unit, the monitor unit needs some type of memory or storage unit to either permanently store or temporarily store the status data)

one or more determining means for, in the event of occurrence of one or more printing errors during printing of the plurality of objects at the printer or printers, determining whether after occurrence of the printing error or errors the printer or printers has or have recovered from one or more printing error states to one or more states permitting printing; (Suzuki, Column 14, Lines 45-55)

and one or more print resuming means for, in the event that it is determined that the printer or printers has or have recovered to the state or states permitting printing, selecting one or more objects from among the plurality of objects based on the print job data stored at the first storage means and the job status information stored at the second storage means, and causing resumption of printing of the selected object or objects. (Suzuki, Column 14, Lines 45-55 and Column 11, Lines 44-49; resuming of transmitting the print data will also resume printing since the printing mechanism is sending data to printer and printing it.)

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As per Claim 2, Suzuki teaches a printing method comprising:

one or more steps in which print job data containing a plurality of objects is sent from one or more host apparatuses to one or more printers; (Suzuki, Column 1, Lines 45-48)

one or more steps in which printing of the plurality of objects is carried out at one or more printers based on the print job data from host apparatus or apparatuses; (Suzuki, Column 1, Lines 45-48 and Column 2, Lines 9-11; splits the print data to multiple objects or parts)

one or more steps in which the print job data is stored; (Suzuki, Column 1, Lines 50-53)

one or more steps in which operations carried out by the printer or printers in connection with printing of the plurality of objects are monitored and job status information is created for each one of the objects; (Suzuki, Figure 1, Component 9 and Column 1, Lines 53-58)

one or more steps in which the created job status information is stored; Suzuki, Figure 1, Component 9 and Column 14, Lines 45-55; when the status is sent to the monitor unit, the monitor unit needs some type of memory or storage unit to either permanently store or temporarily store the status data)

one or more steps in which, in the event of occurrence of one or more printing errors during printing of the plurality of objects at the printer or printers, determination is made as to whether after occurrence of the printing error or errors the printer or printers has or have recovered from one or more printing error states to one or more states permitting printing; (Suzuki, Column 14, Lines 45-55)

and one or more steps in which, in the event that it is determined that the printer or printers has or have recovered to the state or states permitting printing, one or more objects is or are selected from among the plurality of objects based on the stored print job data and the stored job status information, and printing of the selected object or objects is resumed. (Suzuki, Column 14, Lines 45-55 and Column 11, Lines 44-49; resuming of transmitting the print data will also resume printing since the printing mechanism is sending data to printer and printing it.)

As per Claim 3, Suzuki teaches a printing method according to claim 2 wherein, at the step or steps in which printing is resumed, in the event that it is determined that the printer or

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printers has or have recovered to the state or states permitting printing, printing of the selected object or objects is automatically resumed. (Suzuki, Column 14, Lines 45-55)

As per Claim 5, Suzuki teaches a printing method according to claim 2 wherein the step or steps in which the print job data is stored and the step or steps in which the job status information is stored are carried out by the host apparatus or apparatuses. (Suzuki, Figure 1, Components 1, 7, and 9; the components where the claimed functions occur inside the host apparatus)

As per Claim 8, Suzuki teaches a printing method according to claim 5 further comprising: one or more steps in which the stored job status information is retained by the host apparatus or apparatuses at least until printing of the print job data is completed; (Suzuki, Column 1, Lines 55-60)

and one or more steps in which, in the event that it is determined that the printer or printers has or have recovered to the state or states permitting printing, the print job status information and the print job data stored by the host apparatus or apparatuses are sent from the host apparatus or apparatuses to the printer or printers; (Suzuki, Column 14, Lines 45-55)

wherein, at the step or steps in which printing is resumed, the printer or printers select one or more objects for which printing has not yet been completed from among the plurality of objects based on the job status information and the print job data from the host apparatus or apparatuses, and resume printing of the object or objects for which printing has not yet been completed. (Suzuki, Column 14, Lines 45-55)

As per Claim 9, Suzuki teaches a printing method according to claim 5 wherein: in the event that the printing error or errors occur due to one or more reasons attributable to the host apparatus or apparatuses, the step or steps in which job status information is stored is or are carried out by the printer or printers; (Suzuki, Column 13, Lines 66-67 and Column 14, Lines 1-14)

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and the printing method further comprises one or more steps in which, in the event that the reason or reasons attributable to the host apparatus or apparatuses has or have been corrected and it is determined that the printer or printers has or have returned to one or more states permitting printing, the job status information stored by the printer or printers is sent from the printer or printers to the host apparatus or apparatuses. (Suzuki, Column 13, Lines 66-67 and Column 14, Lines 1-14)

As per Claim 11, Suzuki teaches a host apparatus sending print job data containing a plurality of objects to one or more printers and causing printing to be carried out, the host apparatus (Suzuki, Figure 1, Component 1) comprising:

one or more first storage means for storing the print job data; (Suzuki, Figure 1, Component 7, receives print data therefore would store the data before sending it to the print monitor)

one or more second storage means for storing job status information for each one of the objects, the job status information being created based on operations carried out by the printer or printers in connection with printing of the plurality of objects; (Suzuki, Figure 1, Component 9 and Column 14, Lines 45-55)

one or more determining means for, in the event of occurrence of one or more printing errors during printing of the plurality of objects at the printer or printers, determining whether after occurrence of the printing error or errors the printer or printers has or have recovered from one or more printing error states to one or more states permitting printing; (Suzuki, Column 14, Lines 45-55)

and one or more resumption instruction means for, in the event that it is determined that the printer or printers has or have recovered to the state or states permitting printing, controlling the printer or printers so as to cause resumption of printing of one or more objects selected from among the plurality of objects based on the print job data and the job status information, this having been permitted as a result of sending of the print job data stored at the first storage means

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and the job status information stored at the second storage means to the printer or printers. (Suzuki, Column 14, Lines 45-55 and Column 11, Lines 44-49; resuming of transmitting the print data will also resume printing since the printing mechanism is sending data to printer and printing it.)

As per Claim 12, Suzuki teaches a printer receiving print job data containing a plurality of objects from one or more host apparatuses and carrying out printing thereof (Suzuki, Figure 1, Component 3), the printer comprising:

one or more job status monitoring means for creating job status information for each one of the objects by monitoring operations carried out by the printer or printers in connection with printing of the plurality of objects, and for sending the created job status information to the host apparatus or apparatuses (Suzuki, Column 1, Lines 58-62);

one or more determining means for, in the event of occurrence of one or more printing errors during printing of the plurality of objects, determining whether after occurrence of the printing error or errors the printer or printers has or have recovered from one or more printing error states to one or more states permitting printing; (Suzuki, Column 14, Lines 45-55)

and one or more print resuming means for, in the event that it is determined that the printer or printers has or have recovered to the state or states permitting printing, receiving the print job data and the job status information from the host apparatus or apparatuses, selecting one or more objects from among the plurality of objects based on the print job data and the job status information, and resuming printing of the selected object or objects. (Suzuki, Column 14, Lines 45-55 and Column 11, Lines 44-49; resuming of transmitting the print data will also resume printing since the printing mechanism is sending data to printer and printing it.)

101

As per Claim 13, Suzuki teaches a computer program for causing one or more computers to execute a method in which print job data containing a plurality of objects is sent to one or

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more printers and printing is caused to be carried out (Suzuki, Column 1, Lines 45-48 and Column 4, Lines 16-24), the method comprising:

one or more steps in which the print job data is stored; (Suzuki, Column 1, Lines 50-53)

one or more steps in which job status information for each one of the objects is stored, the job status information being created based on operations carried out by the printer or printers in connection with printing of the plurality of objects; (Suzuki, Figure 1, Component 9 and Column 1, Lines 53-58)

one or more steps in which, in the event of occurrence of one or more printing errors during printing of the plurality of objects at the printer or printers, determination is made as to whether after occurrence of the printing error or errors the printer or printers has or have recovered from one or more printing error states to one or more states permitting printing; (Suzuki, Column 14, Lines 45-55)

and one or more steps in which, in the event that it is determined that the printer or printers has or have recovered to the state or states permitting printing, the printer or printers is or are controlled so as to cause resumption of printing of one or more objects selected from among the plurality of objects based on the print job data and the job status information, this having been permitted as a result of sending of the stored print job data and the stored job status information to the printer or printers. (Suzuki, Column 14, Lines 45-55 and Column 11, Lines 44-49; resuming of transmitting the print data will also resume printing since the printing mechanism is sending data to printer and printing it.)

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4, 7, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki USPN 6549947 hereinafter referred to as Suzuki as applied to Claims 2 and 5 and further in view of Wanda USPN 6474881.

As per Claim 4, Suzuki teaches a printing method according to claim 2, and at the step or steps in which printing is resumed, one or more objects for which printing has not yet been completed is or are selected based on the job status information and the print job data, and printing of the object or objects for which printing has not yet been completed is resumed. (Suzuki, Column 14, Lines 45-55 and Column 11, Lines 44-49; resuming of transmitting the print data will also resume printing since the printing mechanism is sending data to printer and printing it.)

Suzuki does not teach wherein: the job status information includes object identification information for specifying one or more objects subject to printing and information indicating one or more numbers of the object or objects subject to printing which has or have already been printed; However Wanda teaches it. (Wanda, Column 13, Lines 30-55 and Figure 18, job status of pending jobs are shown as a group management table)

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of Wanda into Suzuki. Suzuki teaches the ability to resume printing of incomplete print jobs but failed to display attributes of print jobs being spooled and the status of the individual jobs including priority within the jobs. The job management table is beneficial to the user to show finished and pending jobs and indicate the user the progress of all pending jobs so the user can be made aware of the progress of the print jobs.

Therefore it would have been obvious to one of ordinary skill to combine the two references to obtain the invention in Claim 4.

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As per Claim 7, Suzuki teaches a printing method according to claim 5.

Suzuki does not teach wherein: the print job data includes one or more image files, and one or more print specification files specifying one or more manners of printing the image file or files; and at the step or steps in which the job status information is stored, the job status information is recorded in the print specification file or files; However Wanda teaches it. (Wanda, Column 13, Lines 30-55 and Figure 18; the print job management table is stored as a file. The manners of printing the image file or files are considered to be the print order, or where it is being spooled. This print job management table can be updated and stored on a memory which can be considered as the table being stored as a file

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of Wanda into Suzuki. Suzuki teaches the ability to resume printing of incomplete print jobs but failed to display attributes of print jobs being spooled and the status of the individual jobs including priority within the jobs. The job management table is beneficial to the user to show finished and pending jobs and indicate the user the progress of all pending jobs so the user can be made aware of the progress of the print jobs.

Therefore it would have been obvious to one of ordinary skill to combine the two references to obtain the invention in Claim 7.

As per Claim 10, Suzuki in view of Wanda teaches a printing method according to claim 4 wherein: the print job data includes one or more image files, and one or more print specification files specifying one or more manners of printing the image file or files; the print specification file or files contains or contain information specifying how many sets of prints are to be printed, and path information indicating where the image file or files are stored; (Wanda, Column 13, Lines 30-55 and Figure 18; the print job management table is stored as a file. The manners of printing the image file or files is considered to be the print order, or where it is being spooled. This print job management table can be updated and stored on a memory which can be considered as the table being stored as a file)

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and the object identification information included in the job status information is made up of one or more portions of the path information for the image file or files which is or are associated with the object or objects subject to printing. (Wanda, Figure 18, Component 1604, path information is considered where the job is spooled)

Analysis is analogous to that made in Claim 4.

8. Claims 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki USPN 6549947 hereinafter referred to as Suzuki as applied to Claim 5 and further in view of Teng et al. USPN 6327045 hereinafter referred to as Teng.

As per Claim 6, Suzuki teaches a printing method according to claim 5.

Suzuki does not teach wherein the print job data and the job status information are stored on one or more rewritable recording media removably installed at the host apparatus or apparatuses; However Teng teaches it. (Teng, Column 4, Lines 24-29)

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of Teng into Suzuki. Teng teaches the host apparatus that has the ability to record and read rewritable recording medium such as a removable optical disk. The purpose of the removable medium is to make data portable and easily transferred or used at a different apparatus. The data can be job status data or print management file.

Therefore it would have been obvious to one of ordinary skill to combine the two references to obtain the invention in Claim 6.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MING HON whose telephone number is (571)270-5245. The examiner can normally be reached on Mon- Fri 7:30 to 5:00 EST; 1st Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark K. Zimmerman can be reached on (571)272-7653. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. H./
Examiner, Art Unit 2625

/Mark K Zimmerman/
Supervisory Patent Examiner, Art Unit 2625